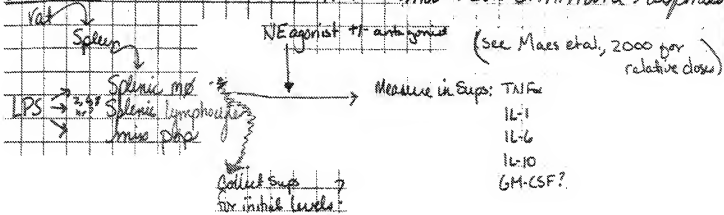
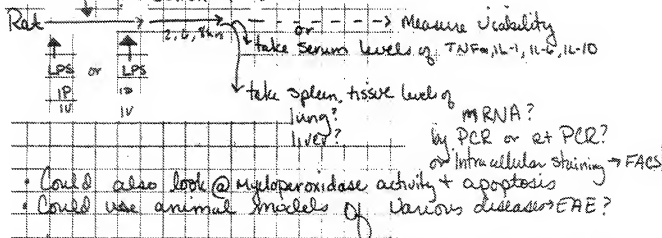


* To determine if efferent of the splenic nerve modulates immune response



*Electrical Stimulation OR
Sympathectomy by Cut Splenic nerve
OR GQ/DA IP OR Saline



it is possible that different treatments with different outcomes: possibly opposite?

* Could be that interactions of one type of receptor do thing + the other type (A or B) does the opposite \therefore may antagonise (antagonistic) to the one that produce undesired effect. To Page 1

Electrical Stim to the spleen

Rational:

- No Cholinergic nerve terminal & virtually no afferent supply in the spleen of rats! (Felton, Cohen, & Bellinger each publish in this area)

Suggest a
mainly not for
immune response

responses are likely
to dose response
are low levels
in β adrenoreceptors
lymphocyte prolifer
high levels
lymphocyte prolifer

- Splenic nerve is considered to consist mainly of sympathetic fibers (noradrenergic)
- Sympathectomy sig & the hemorrhage-induced rise in lung TNF in response to hemorrhage (Molina, 2000)
- Stim of β adrenoreceptors in vitro inhibits blastogenic response of lymphocytes to T & B cell mitogens, IL-2 induced proliferation of lymphocyte, lytic activity of cytotoxic T cells & T cell dependent Ab production
- However, other labs report enhancement in lymphocyte proliferation, lytic activity, & antibody responses by β -adrenergic stimulation (Uthoff & Sanders)

electrical

I propose:

- * Stimulate w/ implantable device @ the splenic nerve to activate the β receptors on lymphocytes to enhance immune response

to silence sympathetic, may have to do hi frequency?

DC?

but it may not be necessary to silence, on/off immunosuppression would benefit several channels.

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Accepted & Understood by me.

Mark [Signature]

Date

Revised

Invented by

John Bryan

Recorded by

Date

Revised